La Niña Update: June 12, 2000

The following is derived from the ENSO Advisory 2000/6 issued by the Climate Prediction Center/National Centers for Environmental Prediction (NCEP) on June 12, 2000.

The large-scale oceanic and atmospheric circulation patterns continued to reflect cold episode (La Niña) conditions in the tropical Pacific during May. However, since the beginning of March several atmospheric and oceanic indices have shown a weakening of La Niña conditions (Fig. 1), similar to the evolution that was observed during the first half of 1999. Negative SST anomalies decreased in magnitude in the central and eastern equatorial Pacific, with positive anomalies appearing between 80°W and 120°W during late March to mid-May (Fig. 2). These positive anomalies were short-lived, with anomalies in this region once again becoming negative by late May and early June.

The most recent NCEP coupled model forecasts and statistical model forecasts, as well as other available forecasts, exhibit considerable spread in the evolution of the SSTs over the next 3-9 months. The NCEP coupled model and the latest LDEO forecast indicate that cold episode conditions will weaken during the next 3 months, followed by near-normal conditions through the end of the year. The NCEP statistical model forecast and other available coupled model and statistical predictions indicate the continuation of cold episode conditions through the end of 2000, with a return to near-normal conditions early in 2001. The lack of any rapid evolution in the subsurface thermal structure and the persistence of low-level easterly anomalies over the central and western equatorial Pacific continues to support a slower decay of the cold episode conditions than is shown by the NCEP coupled model. Thus, it is likely that cold episode conditions will gradually weaken over the next 6 months and that near-normal or slightly cooler than normal conditions will be present in the tropical Pacific at the end of the year.

Weekly updates for SST, 850-hPa wind, and OLR are available on the Climate Prediction Center homepage at:
http://www.cpc.ncep.noaa.gov (Weekly Update).
Forecasts for the evolution of El Niño/La Niña are updated monthly in CPC's Climate Diagnostics Bulletin Forecast Forum.

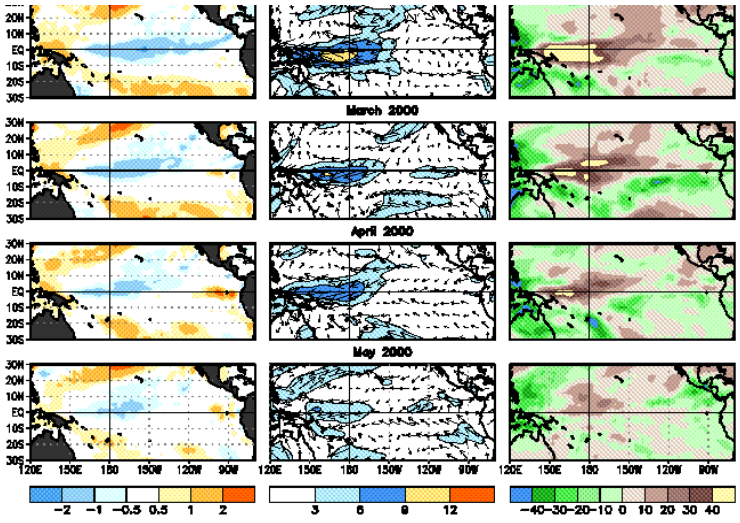

Figure 1. Anomalous sea surface temperatures (left hand panels), 850-hPa vector wind (center panels) and outgoing longwave radiation (right hand panels) for February through May 2000. SST departures from average (anomalies) are computed based on the 1961-1990 base period means (Smith and Reynolds 1998, J. Climate, 11, 3320-3323). OLR and 850-hPa vector wind departures are computed with respect to the 1979-1995 base period means. Contour interval is 0.5°C, 3 m s-1, and 15 W m-2, respectively.

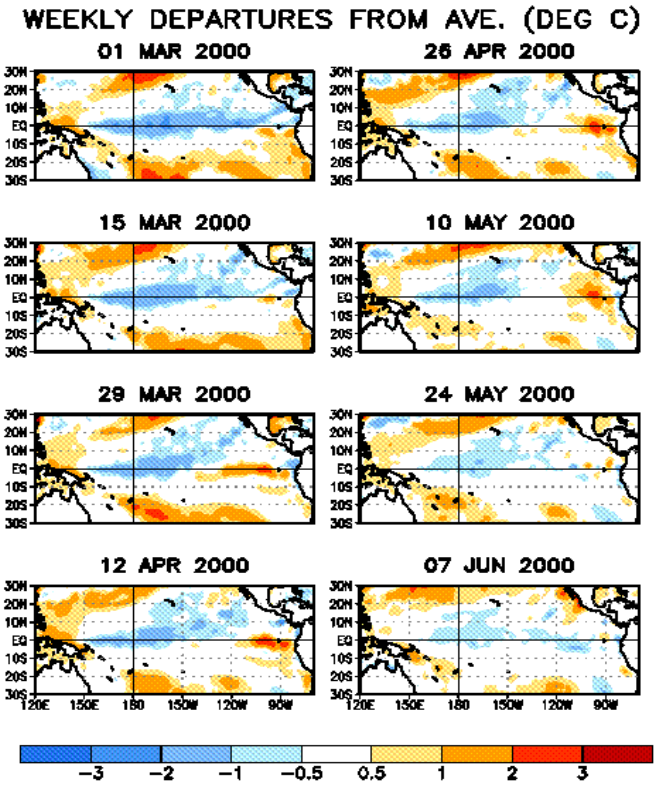

Figure 2. Weekly sea surface temperature anomalies for the period March-early June 2000. Departures from average (anomalies) are computed based on the 1961-1990 base period means (Smith and Reynolds 1998, J. Climate, 11, 3320-3323).